STUDIES ON MIVACURIAM

Sir,—Data published in the *Canadian Journal of Anaesthesia* [1] were used as a comparison group in two subsequent papers [2, 3]. One paper [2] made a comparison with a new group of patient data, whereas the other [3] reported use of a unique statistical treatment to analyse data among groups.

In the first paper [1], a more thorough treatment of the effects on both neuromuscular block and circulation caused by mivacurium during nitrous oxide–opioid anaesthesia was compared with those in patients receiving mivacurium during nitrous oxide–isoflurane anaesthesia. (Ninety patients were described in the nitrous oxide–opioid group; the first 45 patients from the nitrous oxide–opioid group were used as a comparison group in the other two papers. The last 45 patients in the paper in the *Canadian Journal of Anaesthesia* [1] were given doses which exceeded the ED$_{95}$.) We used data from those patients who received mivacurium 0.03–0.15 mg kg$^{-1}$ during nitrous oxide–opioid anaesthesia so as to provide comparison data for our studies during other types of anaesthesia. We failed to clarify this by appropriate references in subsequent papers.

In the third paper [3], slopes and intercepts of the dose–response curves for mivacurium during the three types of anaesthesia were compared using a $t$ test for multiple comparisons described by Winer and noted as reference No. 8 in this paper. This analysis is not found in either of the other two papers.

We were in error in failing to acknowledge that data from 45 patients were common to all three papers and that data from an additional 45 patients (anaesthetized with isoflurane) were common to two papers [1, 3]. We should have asked permission from the *British Journal of Anaesthesia* to use these data for comparisons in our other manuscripts. Copies of the other manuscripts should have been included for each journal's review at the time of original submission and they should subsequently have been cross-referenced correctly. We apologize for this error.

Finally, we have thought carefully about the sequence of events which occurred here and have tried hard to understand our actions and our intent. We had no intent to deceive. This was a large project, with 171 patients studied. The three manuscripts were all prepared and submitted at about the same time (February 21 to March 7, 1989) and we failed to ask for permissions or cross-reference them correctly. The data are true and correct responses to mivacurium during three types of anaesthesia.

REFERENCES


PROPOFOL: EFFECT ON THE MYOCARDIUM COMPARED WITH THE PERIPHERAL VASCULAR SYSTEM

Sir,—I read with great interest the article by Boer and colleagues [1] on the effect of propofol on peripheral vascular resistance during cardiopulmonary bypass. The authors state that propofol appeared to cause more hypotension than an equivalent dose of thiopentone, and that this may be related to the greater decrease in peripheral vascular resistance (PVR), citing my study [2] in their opening paragraph. They continue to say that the decrease in PVR was comparable to the decrease in arterial pressure, suggesting that vasodilatation may be a major factor in propofol-induced hypotension.

I believe the authors are incorrect in what they state. The study plainly revealed no significant decreases in either PVR or SVR, but significant decreases in left cardiac work index and left stroke work index of 35%. Cardiac index decreased by 18%, while mean arterial pressure decreased 23%. The data indicate myocardial depression with loss of systemic vascular resistance. Authors such as Williams and colleagues [3], Kaplan and colleagues [4] and Van Aken and colleagues [5] have also indicated that propofol is indeed a myocardial depressant drug.

Dr Boer and his colleagues are to be congratulated on performing such an interesting study and also on their statement that the results are influenced by special factors present during cardiopulmonary bypass, in particular haemodilution, hypothermia and the use of non-pulsatile blood flow. Data resulting from the use of drugs during cardiopulmonary bypass to determine their effects on the vascular bed are, indeed, difficult to extrapolate to the intact human being.

M. LIPPMANN
Los Angeles

REFERENCES

2. Lippmann M, Piacius R, Gingerich S, Owens R, Mok